UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

09629

7590

02/11/2004

MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004 EXAMINER
CHUNG, DAVID Y

ART UNIT PAPER NUMBER

2871

DATE MAILED: 02/11/2004

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-----------------|-------------|----------------------|---------------------|------------------|--|
| 09/885,527 | 06/21/2001 | Jong-Woo Kim | 053785-5018 | 2621 | |

TITLE OF INVENTION: LIQUID CRYSTAL DISPLAY DEVICE AND METHOD OF FABRICATING THE SAME

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE | PUBLICATION FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|-----------|-----------------|------------------|------------|
| nonprovisional | NO | \$1330 | \$300 | \$1630 | 05/11/2004 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility t ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail St p ISSUE FEE Commissi ner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u>

(703) 746-4000

maintenance fee notifications.

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1) 09629 02/11/2004 MORGAN LEWIS & BOCKIUS LLP Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below. 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004 (Depositor's name (Date FIRST NAMED INVENTOR ATTORNEY DOCKET NO. APPLICATION NO. FILING DATE CONFIRMATION NO Jong-Woo Kim 053785-5018 09/885.527 06/21/2001 2621 TITLE OF INVENTION: LIQUID CRYSTAL DISPLAY DEVICE AND METHOD OF FABRICATING THE SAME APPLN. TYPE SMALL ENTITY **ISSUE FEE PUBLICATION FEE** TOTAL FEE(S) DUE DATE DUE NO \$1330 \$300 \$1630 05/11/2004 nonprovisional ART UNIT CLASS-SUBCLASS **EXAMINER** CHUNG, DAVID Y 2871 349-187000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent "Fee Address" indication (or "Fee Address" Indication form attorneys or agents. If no name is listed, no name PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer will be printed Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (B) RESIDENCE: (CITY and STATE OR COUNTRY) (A) NAME OF ASSIGNEE Please check the appropriate assignee category or categories (will not be printed on the patent); ☐ individual ☐ corporation or other private group entity government 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): ☐ Issue Fee A check in the amount of the fee(s) is enclosed. ☐ Publication Fee □ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number ______ (enclose an extra copy of this form). ☐ Advance Order - # of Copies Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date)

NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

| APPLICATION NO. | F | ILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. CONFIRMATION NO | |
|----------------------------|------|------------|-------------------------|-------------------------------------|--------------|
| 09/885,527 | | 06/21/2001 | Jong-Woo Kim | 053785-5018 2621 | |
| 09629 | 7590 | 02/11/2004 | | EXAM | IINER |
| MORGAN LEWIS & BOCKIUS LLP | | | CHUNG, DAVID Y | | |
| WASHINGTO | | | NUE NW ART UNIT | | PAPER NUMBER |
| | ., | | | 2871 | |
| | | | DATE MAILED: 02/11/2004 | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 5 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 5 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

| | | | M - | |
|--|--|--|------------------------------|--|
| | Application No. | Applicant(s) | 7.0 | |
| | 00/005 507 | IZINA ET AL | MARTAL | |
| Notice of Allowability | 09/885,527 Examiner | KIM ET AL. Art Unit | T | |
| | David Y. Chung | 2871 | | |
| The MAILING DATE of this communication ap All claims being allowable, PROSECUTION ON THE MERITS herewith (or previously mailed), a Notice of Allowance (PTOL-8 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT of the Office or upon petition by the applicant. See 37 CFR 1.3 | IS (OR REMAINS) CLOSED in 35) or other appropriate communication is set in the set of th | n this application. If not including this application. If not including the same is application will be mailed in due. | ded e course. THIS | |
| This communication is responsive to <u>after-final arguments</u> The allowed claim(s) is/are <u>1-17</u>. The drawings filed on <u>21 June 2001</u> are accepted by the Acknowledgment is made of a claim for foreign priority a) | e Examiner. | or (f). | | |
| 1. ☑ Certified copies of the priority documents ha | ave heen received | | • | |
| 2. ☐ Certified copies of the priority documents ha | | n No | | |
| 3. ☐ Copies of the certified copies of the priority | • • | | ation from the | |
| International Bureau (PCT Rule 17.2(a)) | | u iii tiiis iiationai stage applic | adon nom the | |
| * Certified copies not received: | • | | | |
| Acknowledgment is made of a claim for domestic priority reference was included in the first sentence of the speci | fication or in an Application Da | ta Sheet. 37 CFR 1.78. | ce a specific | |
| (a) The translation of the foreign language provisions | • • | | | |
| Acknowledgment is made of a claim for domestic priority in the first sentence of the specification or in an Application | | or 121 since a specific refere | nce was included | |
| Applicant has THREE MONTHS FROM THE "MAILING DATE below. Failure to timely comply will result in ABANDONMENT | | | | |
| 7. A SUBSTITUTE OATH OR DECLARATION must be su INFORMAL PATENT APPLICATION (PTO-152) which (| | | NOTICE OF | |
| 8. CORRECTED DRAWINGS (as "replacement sheets") n (a) including changes required by the Notice of Draftsp | | v (PTO-948) attached | | |
| 1) hereto or 2) to Paper No | | | | |
| (b) including changes required by the proposed drawin | <u> </u> | , , , , , , , , , , , , , , , , , , , | | |
| (c) ☐ including changes required by the attached Examin | er's Amendment / Comment of | in the Office action of Paper | NO | |
| Identifying indicia such as the application number (see 37 CF each sheet. Replacement sheet(s) should be labeled as such | | | ne back) of | |
| DEPOSIT OF and/or INFORMATION about the de attached Examiner's comment regarding REQUIREMENT FOR | | | Note the | |
| Attachment(s) | | | | |
| 1⊠ Notice of References Cited (PTO-892) | 5 ☐ Notice of Info | ormal Patent Application (PT | O-152) | |
| 2☐ Notice of Draftperson's Patent Drawing Review (PTO-948 |) . 6⊠ Interview Su | mmary (PTO-413), Paper No | · · | |
| 3⊠ Information Disclosure Statements (PTO-1449 or PTO/SB | (00) | Amendment/Comment | | |
| Paper No 4 Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8⊠ Examiner's S 9□ Other | Statement of Reasons for Allo | owance | |

Application/Control Number: 09/885,527

Art Unit: 2871

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David B. Hardy on January 30, 2004.

The application has been amended as follows:

In claim 1, line 17, "insulating layer" has been changed to --passivation layer--;

Claims 18-28 have been canceled.

Application/Control Number: 09/885,527

Art Unit: 2871

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: in the examiner's opinion, it would not have been obvious to replace the capacitor structure disclosed by Park et al. (U.S. 6,335,276) with the capacitor structure disclosed by Kim (U.S. 6,255,130). Furthermore, the prior art disclosure of Kim does not teach patterning the passivation layer, the active layer, and the insulating layer in a single manufacturing step.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (571) 272-2288. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.



David Chung GAU 2871 01/30/04

| Interview Summary | 09/885,527 KIM ET AL. | | | | |
|---|--------------------------------|--------------------|--|--|--|
| interview Summary | Examiner | Art Unit | | | |
| | David Y. Chung | 2871 | | | |
| All participants (applicant, applicant's representative, PTO | personnel): | | | | |
| (1) David Y. Chung. | (3) | | | | |
| (2) <u>David B. Hardy</u> . | (4) | | | | |
| Date of Interview: 30 January 2004. | | | | | |
| Type: a)⊠ Telephonic b)□ Video Conference c)□ Personal [copy given to: 1)□ applicant 2 | 2)∐ applicant's representative | ·] | | | |
| Exhibit shown or demonstration conducted: d) Yes If Yes, brief description: | e)⊠ No. | | | | |
| Claim(s) discussed: <u>1</u> . | | | | | |
| Identification of prior art discussed: N/A. | | | | | |
| Agreement with respect to the claims f)⊠ was reached. g |)□ was not reached. h)□ N | I/A. | | | |
| Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: <u>Applicant agreed to an examiner's amendment changing claim 1 to recite that the contact hole is formed in the passivation layer instead of the insulating layer.</u> (A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.) | | | | | |
| THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet. | | | | | |
| | • | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Examiner Note: You must sign this form unless it is an Attachment to a signed Office action. | Examiner's sign | ature, if required | | | |

Application No.

Applicant(s)